

APR 28 2008

Serial No. 10/674,562  
Reply to Office Action dated February 6, 2008

Docket No. 3655/0303PUS1

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Currently amended) A call management system for interconnecting a customer who is using a communication device, with one of a plurality of customer agents; said interconnection thereby establishing a service call, said call management system comprising:

means for segmenting said call into a plurality of phases;

means for predicting a current phase of said call from said plurality of phases; and,

means for estimating time remaining on said call;

wherein said means for estimating comprises a means for classifying said call into one of a plurality of call classes and means for performing methods of automatic speech analysis upon the service call and evaluating the proportion of time the customer speaks relative to time the agent speaks.

Claims 2 and 3 (Cancelled).

4. (Currently amended) The call management system of ~~claim 3~~ claim 1 wherein said methods of automatic speech analysis are selected from the group consisting of Automatic Speech Recognition, accent recognition, disfluency recognition, speaking rate categorization, and verbosity categorization.

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5. (Original) The call management system of claim 4 further comprising:

means for queuing additional calls awaiting an available agent from said plurality of customer agents;

means for predicting the availability of an agent currently engaged in a service call based on said estimated time remaining on said call and,

means for assigning one of said queued additional calls to said currently engaged agent.

6. (Original) The call management system of claim 5, wherein the call management system is an outbound contact center and wherein the system further comprises:

means for originating an outbound call to a customer prior to the currently engaged agent completing the service call.

Claim 7 (Cancelled).

8. (Currently amended) The call management system of ~~claim 3~~ claim 1 wherein said means for estimating further comprises evaluating status of a computer screen displayed to the agent.

9. (Currently amended) The call management system of ~~claim 3~~ claim 1 wherein said means for estimating further comprises means for modeling the flow from one phase of said plurality of phases of the call to another phase of said plurality of phases of the call.

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10. (Original) The call management system of claim 9, further comprising a feedback means for improving accuracy of said modeling means by utilizing feedback of when the call actually ended.

11. (Currently amended) A method estimating the time remaining on a service call, for use in a call management system which interconnects a customer who is using a communication device, with one of a plurality of customer agents; said interconnection thereby establishing said service call; said method comprising the steps of:

segmenting said call into a plurality of phases;

predicting a current phase of the call from said plurality of phases; and,

estimating time remaining on said call using said predicted current phase,

wherein said estimating step comprises steps of classifying said call into one of a plurality of call classes, performing methods of automatic speech analysis upon the service call and evaluating the proportion of time the customer speaks relative to time the agent speaks.

Claims 12 and 13 (Cancelled).

14. (Currently amended) The method of ~~claim 13~~ claim 11 wherein said methods of automatic speech analysis are selected from the group consisting of Automatic Speech Recognition, accent recognition, disfluency recognition, speaking rate categorization, and verbosity categorization.

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Claim 15 (Cancelled).

16. (Currently amended) The method of ~~claim 13~~ claim 11 wherein said estimating step further comprises a step of evaluating status of a computer screen displayed to the agent.

17. (Currently amended) The method of ~~claim 13~~ claim 11 wherein said estimating step further comprises a step of modeling the flow from one phase of said plurality of phases of the call to another phase of said plurality of phases of the call.

18. (Original) The method of claim 17 further comprising the step of improving accuracy of said modeling step by providing feedback of when the call actually ended.

19. (New) A method of estimating the time remaining on a service call, for use in a call management system which interconnects a customer who is using a communication device with one of a plurality of customer agents, the interconnection thereby establishing the service call, said method comprising:

defining a plurality of service calls phases;

performing automated speech recognition on a conversation between the customer and one of the plurality of customer agents;

determining the phase of the service call based on the outcome of said automated speech recognition step; and

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estimating the time remaining on the service call based on the phase of the call.

20. (New) The method of claim 19 wherein estimating the time remaining on the service call includes estimating the time remaining on the service call based on an expected length of the determined phase.

21. (New) The method of claim 19 wherein estimating the time remaining on the service call includes estimating the time remaining on the service call based on an expected length of the determined phase and on an expected length of any of the defined service call phases expected to occur before the end of the service call.

22. (New) The method of claim 20 wherein estimating the time remaining on the service call includes evaluating the proportion of time the customer speaks relative to time the agent speaks.

23. (New) The method of claim 20 wherein estimating the time remaining on the service call includes recognizing a level of disfluency of speech of the customer and adjusting the estimated time remaining on the service call based on the level of disfluency.

24. (New) The method of claim 20 wherein estimating the time remaining on the service call includes determining a speaking rate of the customer and estimating the time remaining on the service call based on the speaking rate.

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25. (New) The method of claim 20 wherein estimating the time remaining on the service call includes categorizing the verbosity of the customer and estimating the time remaining on the service call based on the verbosity.

26. (New) The method of claim 20 wherein estimating the time remaining on the service call includes categorizing the accent of the customer and estimating the time remaining on the service call based on the accent.